

CLAIMS

We claim:

1. A container comprising:
 - an open top defined by an annular rim;
 - a base; and
 - a sidewall extending between the top and the base, the sidewall comprising a recess and an annular shoulder located between the recess and the base, the annular shoulder comprising an arched portion.
2. The container of Claim 1 wherein the sidewall further comprises an inner surface and an outer surface, the annular shoulder and the arched portion being located on the outer surface, and the inner surface comprising a raised ledge;
 - wherein the arched portion and the raised ledge are cooperatively dimensioned such that the raised ledge sits within the arched portion of a second identical container when the second identical container is nested upon the container.
3. The container of Claim 1 further comprising a means for ensuring proper nesting of the container with a second identical container.
4. The container of Claim 1 wherein the annular shoulder further comprises a means for stabilizing the container when the container is held by a user.
5. The container of Claim 1 wherein the recess terminates at the annular shoulder.
6. The container of Claim 1 wherein the sidewall further comprises an annular rib.
7. The container of Claim 1 wherein the sidewall further comprises multiple annular ribs, at least one of the annular ribs comprising a curved portion aligned with the recess.
8. The container of Claim 1 wherein the recess is longitudinal and arcuately formed.
9. The container of Claim 1 further comprising a measurably improved strength to weight ratio over a substantially similar sidewall having no recesses.
10. The container of Claim 1 further comprising an improved strength to weight ratio of at least 3% over a substantially similar sidewall having no recesses.

11. The container of Claim 1 further comprising an improved strength to weight ratio of at least 20% over a substantially similar sidewall having no recesses.

12. The container of Claim 1 further comprising an improved strength to weight ratio of at least 40% over a substantially similar sidewall having no recesses.

5 13. The container of Claim 1 wherein the sidewall further comprises a lower portion extending between the annular shoulder and the base, the lower portion comprising a beveled portion aligned with the recess.

14. The container of Claim 1 wherein the sidewall further comprises a lower portion extending between the annular shoulder and the base, the lower portion comprising a beveled
10 portion aligned with the arched portion.

15. A container comprising:

an open top defined by an annular rim;

a base; and

a sidewall extending between the top and the base, the sidewall comprising an
15 arcuately formed longitudinal recess and a stacking shoulder.

16. The container of Claim 15 wherein the sidewall tapers outward between the stacking shoulder and the base and the sidewall tapers outward between the stacking shoulder and the top.

17. The container of Claim 15 wherein the sidewall tapers inward between the stacking
20 shoulder and the base and the sidewall tapers inward between the stacking shoulder and the top.

18. A container comprising:

an open top defined by an annular rim;

a base; and

a sidewall extending between the top and the base, the sidewall comprising a
25 number of recesses, an annular shoulder located between the recesses and the base, and a lower portion extending between the annular shoulder and the base;
wherein the number of recesses is in the range of from 1 to 20.

19. The container of Claim 18 wherein the number of recesses is in the range of from 2 to
12.

20. The container of Claim 18 wherein the recesses terminate at the annular shoulder

21. The container of Claim 18 wherein the lower portion further comprises a number of beveled portions equal to the number of recesses, each beveled portion aligned with one of the number of recesses.

5 22. The container of Claim 18 wherein the lower portion, the annular shoulder, and the base are substantially elliptical.

23. The container of Claim 18 wherein the sidewall further comprises an annular rib, the annular rib comprising a number of curved portions equal to the number of recesses, each curved portion aligned with one of the number of recesses.

10 24. The container of Claim 18 wherein the recess is longitudinal and arcuately formed.

25. The container of Claim 18 further comprising a means for ensuring proper nesting of the container with a second identical container.

26. The container of Claim 18 wherein the annular shoulder further comprises a means for stabilizing the container when the container is held by a user.

15 27. The container of Claim 18 further comprising a measurably improved strength to weight ratio over a substantially similar sidewall having no recesses.

28. The container of Claim 18 further comprising an improved strength to weight ratio of at least 4% over a substantially similar sidewall having no recesses.

29. The container of Claim 18 further comprising an improved strength to weight ratio of at least 20% over a substantially similar sidewall having no recesses.

30. The container of Claim 18 further comprising an improved strength to weight ratio of at least 40% over a substantially similar sidewall having no recesses.

31. The container of Claim 18 wherein the sidewall tapers outward between the annular shoulder and the base and the sidewall tapers outward between the annular shoulder and the top.

25 32. A container comprising:

an open top defined by an annular rim;

a base; and

a sidewall extending between the top and the base, the sidewall comprising two longitudinal recesses, an annular rib, an annular shoulder located between the

longitudinal recesses and the base, and a lower portion extending between the annular shoulder and the base, the annular shoulder comprising two arched portions aligned with the longitudinal recesses, and the lower portion comprising two beveled portions aligned with the longitudinal recesses.

5 33. The container of Claim 32 wherein the longitudinal recesses are arcuately formed.

34. The container of Claim 32 wherein the recess terminates at the annular shoulder.

35. The container of Claim 32 wherein the sidewall further comprises an inner surface and an outer surface, the annular shoulder and the arched portions being located on the outer surface, and the inner surface comprising two raised ledges;

10 wherein the arched portions and the raised ledges are cooperatively dimensioned such that the raised ledges sit within the arched portions of a second identical container when the second identical container is nested upon the container.

36. The container of Claim 32 further comprising a means for ensuring proper nesting of the container upon a second identical container.

15 37. The container of Claim 32 wherein the annular shoulder further comprises a means for stabilizing the container when the container is held by a user.

38. The container of Claim 32 further comprising a measurably improved strength to weight ratio over a substantially similar sidewall having no recesses.

39. The container of Claim 32 further comprising an improved strength to weight ratio of at least 4% over a substantially similar sidewall having no longitudinal recesses.

20 40. The container of Claim 32 further comprising an improved strength to weight ratio of at least 20% over a substantially similar sidewall having no longitudinal recesses.

41. The container of Claim 32 further comprising an improved strength to weight ratio of at least 40% over a substantially similar sidewall having no longitudinal recesses.

25 42. The container of Claim 32 wherein the annular rib comprises a curved portion aligned with the longitudinal recess.

43. A container comprising:

 an open top defined by an annular rim;

 a substantially circular base; and

a sidewall extending between the top and the base, the sidewall comprising two concave, arcuately formed, longitudinal recesses, several annular ribs, an annular shoulder located between the longitudinal recesses and the base, and a lower portion extending between the annular shoulder and the base, the longitudinal recesses terminating at the annular shoulder, the annular shoulder comprising two arched portions aligned with the longitudinal recesses, and the lower portion comprising two beveled portions aligned with the longitudinal recesses.